

#4

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/518,001 A  
Source: PCT  
Date Processed by STIC: 10/31/2005

# ***ENTERED***

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/518,001A

CRF Edit Date: 10/31/2005  
Edited by: DA

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

~~\_\_\_~~ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_ Other:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



PCT

## RAW SEQUENCE LISTING

DATE: 10/31/2005

PATENT APPLICATION: US/10/518,001A

TIME: 11:56:24

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\10312005\J518001A.raw

3 <110> APPLICANT: EBL GmbH  
 5 <120> TITLE OF INVENTION: Method for the production of protamine  
 7 <130> FILE REFERENCE: Protamine  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/518,001A  
 C--> 10 <141> CURRENT FILING DATE: 2004-12-14  
 12 <160> NUMBER OF SEQ ID NOS: 36  
 14 <170> SOFTWARE: PatentIn Ver. 2.1  
 16 <210> SEQ ID NO: 1  
 17 <211> LENGTH: 102  
 18 <212> TYPE: DNA  
 19 <213> ORGANISM: Oncorhynchus mykiss  
 21 <220> FEATURE:  
 22 <221> NAME/KEY: CDS  
 23 <222> LOCATION: (1)..(99)  
 25 <220> FEATURE:  
 26 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
 27 sequence  
 29 <400> SEQUENCE: 1  
 30 atg ccc aga aga cgc aga tcc tcc agc cga cct gtc cgc agg cgc cgc 48  
 31 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
 32 1 5 10 15  
 34 cgc ccc agg gtg tcc cga cgt cgt cgc agg aga gga ggc cgc agg agg 96  
 35 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg  
 36 20 25 30  
 38 cgt tag 102  
 39 Arg  
 42 <210> SEQ ID NO: 2  
 43 <211> LENGTH: 33  
 44 <212> TYPE: PRT  
 45 <213> ORGANISM: Oncorhynchus mykiss  
 47 <220> FEATURE:  
 48 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
 49 sequence  
 51 <400> SEQUENCE: 2  
 52 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
 53 1 5 10 15  
 55 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg  
 56 20 25 30  
 58 Arg  
 63 <210> SEQ ID NO: 3  
 64 <211> LENGTH: 102  
 65 <212> TYPE: DNA  
 66 <213> ORGANISM: Oncorhynchus mykiss

(Pg-6)

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68 <220> FEATURE:
69 <221> NAME/KEY: CDS
70 <222> LOCATION: (1)..(99)
72 <220> FEATURE:
73 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
74     sequence
76 <400> SEQUENCE: 3
77 atg ccc aga aga cgc aga tcc tcc aga cca cct gtc cgc agg cgc cgc    48
78 Met Pro Arg Arg Arg Arg Ser Ser Arg Pro Pro Val Arg Arg Arg Arg
79   1           5           10           15
81 cgc ccc agg gtg tcc cga cgt cgt cgc agg aga gga ggc cgc agg agg    96
82 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
83           20           25           30
85 cgt tag    102
86 Arg
89 <210> SEQ ID NO: 4
90 <211> LENGTH: 33
91 <212> TYPE: PRT
92 <213> ORGANISM: Oncorhynchus mykiss
94 <220> FEATURE:
95 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
96     sequence
98 <400> SEQUENCE: 4
99 Met Pro Arg Arg Arg Arg Ser Ser Arg Pro Pro Val Arg Arg Arg Arg
100  1           5           10           15
102 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
103           20           25           30
105 Arg
110 <210> SEQ ID NO: 5
111 <211> LENGTH: 102
112 <212> TYPE: DNA
113 <213> ORGANISM: Oncorhynchus mykiss
115 <220> FEATURE:
116 <221> NAME/KEY: CDS
117 <222> LOCATION: (1)..(99)
119 <220> FEATURE:
120 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
121     sequence
123 <400> SEQUENCE: 5
124 atg ccc aga aga cgc aga tcc tcc aga cga cct gtc cgc agg cgc cgc    48
125 Met Pro Arg Arg Arg Arg Ser Ser Arg Arg Pro Val Arg Arg Arg Arg
126  1           5           10           15
128 cgc ccc agg gtg tcc cga cgt cgt cgc agg aga gga ggc cgc agg agg    96
129 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
130           20           25           30
132 cgt tag    102
133 Arg
136 <210> SEQ ID NO: 6
137 <211> LENGTH: 33

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138 <212> TYPE: PRT
139 <213> ORGANISM: Oncorhynchus mykiss
141 <220> FEATURE:
142 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
143     sequence
145 <400> SEQUENCE: 6
146 Met Pro Arg Arg Arg Arg Ser Ser Arg Arg Pro Val Arg Arg Arg Arg
147   1           5           10           15
149 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
150       20           25           30
152 Arg
157 <210> SEQ ID NO: 7
158 <211> LENGTH: 102
159 <212> TYPE: DNA
160 <213> ORGANISM: Oncorhynchus mykiss
162 <220> FEATURE:
163 <221> NAME/KEY: CDS
164 <222> LOCATION: (1)..(99)
166 <220> FEATURE:
167 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
168     sequence
170 <400> SEQUENCE: 7
171 atg ccc aga aga cgc aga tcc tct agc cga cct gtc cgc agg cgc cgc   48
172 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
173   1           5           10           15
175 cgc gcc agg gtg tcc cga cgt cgt cgc agg aga gga cgc cgc agg agg   96
176 Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Arg Arg Arg Arg
177       20           25           30
179 cgt tag                                     102
180 Arg
183 <210> SEQ ID NO: 8
184 <211> LENGTH: 33
185 <212> TYPE: PRT
186 <213> ORGANISM: Oncorhynchus mykiss
188 <220> FEATURE:
189 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
190     sequence
192 <400> SEQUENCE: 8
193 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
194   1           5           10           15
196 Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Arg Arg Arg Arg
197       20           25           30
199 Arg
204 <210> SEQ ID NO: 9
205 <211> LENGTH: 102
206 <212> TYPE: DNA
207 <213> ORGANISM: Oncorhynchus mykiss
209 <220> FEATURE:
210 <221> NAME/KEY: CDS

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211 <222> LOCATION: (1)..(99)
213 <220> FEATURE:
214 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
215     sequence
217 <400> SEQUENCE: 9
218 atg ccc aga aga cgc aga tcc tcc agc cga cct gtc cgc agg cgc cgc    48
219 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
220   1           5           10           15
222 cgc ccc agg gtg tcc cga cgt cgt cgc agg aga gga cgc cgc agg agg    96
223 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Arg Arg Arg Arg
224           20           25           30
226 cgt tag    102
227 Arg
230 <210> SEQ ID NO: 10
231 <211> LENGTH: 33
232 <212> TYPE: PRT
233 <213> ORGANISM: Oncorhynchus mykiss
235 <220> FEATURE:
236 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
237     sequence
239 <400> SEQUENCE: 10
240 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
241   1           5           10           15
243 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Arg Arg Arg Arg
244           20           25           30
246 Arg
251 <210> SEQ ID NO: 11
252 <211> LENGTH: 102
253 <212> TYPE: DNA
254 <213> ORGANISM: Oncorhynchus keta
256 <220> FEATURE:
257 <221> NAME/KEY: CDS
258 <222> LOCATION: (1)..(99)
260 <220> FEATURE:
261 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
262     sequence
264 <400> SEQUENCE: 11
265 atg ccc aga aga cgc aga tcc tcc agc cga cct gtc cgc agg cgc cgc    48
266 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
267   1           5           10           15
269 cgc cct agg gtg tcc cga cgt cgt cgc agg aga gga ggc cgc agg agg    96
270 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
271           20           25           30
273 cgt tag    102
274 Arg
277 <210> SEQ ID NO: 12
278 <211> LENGTH: 33
279 <212> TYPE: PRT
280 <213> ORGANISM: Oncorhynchus keta

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Input Set : A:\pto.da.txt

Output Set: N:\CRF4\10312005\J518001A.raw

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282 <220> FEATURE:
283 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide
284     sequence
286 <400> SEQUENCE: 12
287 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
288   1             5             10             15
290 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
291       20             25             30
293 Arg
298 <210> SEQ ID NO: 13
299 <211> LENGTH: 102
300 <212> TYPE: DNA
301 <213> ORGANISM: Oncorhynchus mykiss
303 <220> FEATURE:
304 <221> NAME/KEY: CDS
305 <222> LOCATION: (1)..(99)
307 <220> FEATURE:
308 <221> NAME/KEY: misc_feature
309 <222> LOCATION: (54)..(54)
310 <223> OTHER INFORMATION: n = a or c or g or t
312 <220> FEATURE:
313 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid
314     sequence
316 <400> SEQUENCE: 13
317 atg ccc aga aga cgc aga tcc tcc agc cga cct gtc cgc agg cgc cgc   48
318 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
319   1             5             10             15
W--> 321 cgc gcg agg gtc tcc cga cgt cgt cgc agg aga gga ggc cgc agg agg   96
322 Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
323       20             25             30
325 cgt tag                                     102
326 Arg
329 <210> SEQ ID NO: 14
330 <211> LENGTH: 33
331 <212> TYPE: PRT
332 <213> ORGANISM: Oncorhynchus mykiss
334 <220> FEATURE:
335 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid
336     sequence
338 <400> SEQUENCE: 14
339 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg
340   1             5             10             15
342 Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg
343       20             25             30
345 Arg
350 <210> SEQ ID NO: 15
351 <211> LENGTH: 96
352 <212> TYPE: DNA
353 <213> ORGANISM: Oncorhynchus mykiss

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/518,001A

DATE: 10/31/2005  
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Input Set : A:\pto.da.txt  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; N Pos. 54  
Seq#:15; N Pos. 21,30  
Seq#:17; N Pos. 21,30  
Seq#:21; N Pos. 27  
Seq#:23; N Pos. 30  
Seq#:27; N Pos. 30  
Seq#:28; N Pos. 9,12,18,42,57,78,81,93,96  
Seq#:33; Xaa Pos. 1,2,6,7,8,9,10,11,12,13,14,19,20,22,23,24,25,29,30,31,32  
Seq#:33; Xaa Pos. 36



**VERIFICATION SUMMARY**

DATE: 10/31/2005

PATENT APPLICATION: US/10/518,001A

TIME: 11:56:25

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\10312005\J518001A.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:48  
L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:425 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0  
L:564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
L:650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0  
L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0  
L:709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:60  
L:884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0  
L:887 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:16  
L:890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:32